We Claim:

1.   A memory medium which stores program instructions implementing a graphical user interface (GUI) for debugging a program, wherein, during execution of the program, the program instructions are executable by a processor to perform:

displaying source code for the program in a first GUI element;

receiving first user input to the first GUI element indicating an expression in the source code;

displaying a value of the expression in a tooltip in response to said first user input;

receiving second user input to the tooltip modifying the displayed value, thereby specifying a new value for the expression; and

setting the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

2.   The memory medium of claim 1, wherein said receiving first user input to the first GUI element comprises:

receiving the first user input from a pointing device.

3.   The memory medium of claim 2, wherein the first user input from a pointing device comprises:

a cursor associated with the pointing device hovering over the expression.

4.   The memory medium of claim 1, wherein said wherein said receiving first user input to the first GUI element comprises:

receiving the first user input from a keyboard.

5.   The memory medium of claim 1, wherein said wherein said receiving first user input to the first GUI element comprises:

receiving the first user input to a menu.

6.   The memory medium of claim 1, wherein the tooltip is context sensitive.

7.   The memory medium of claim 6, wherein the tooltip comprises a control corresponding to a data type of the expression, and wherein the data type of the expression comprises at least one of:

a string data type;

a character data type;

a numeric data type;

a Boolean data type; and

an array data type.

8.   The memory medium of claim 6, wherein the tooltip is operable to display the value of the expression in a specified format;

wherein if the expression comprises integer data, the specified format comprises one or more of:

decimal;

hexadecimal;

octal;

binary; and

ASCII; and

wherein if the expression comprises single or double precision, the specified format comprises one or more of:

floating point; and

scientific notation.

9.   The memory medium of claim 8, wherein the specified format is specified via a second GUI element in the GUI.

10.   The memory medium of claim 1, wherein the tooltip comprises:

a first portion, operable to display the value of the expression, wherein the first portion is further operable to receive the second user input modifying the value; and

a second portion, operable to display non-editable information related to the expression.

11.   The memory medium of claim 10, wherein the second portion comprises a text indicator, operable to display text.

12.   The memory medium of claim 10, wherein the first portion is further operable to graphically indicate that the value is editable.

13.   The memory medium of claim 1, wherein the expression comprises a variable.

14.   The memory medium of claim 1, wherein the expression comprises a syntactic expression comprising one or more of:

one or more variables;

one or more constants;

one or more macros; and

one or more operators.

15.   The memory medium of claim 1, wherein the execution of the program is in debugging mode.

16.   The memory medium of claim 1, wherein the program instructions are further executable to perform:

evaluating the expression to determine the value of the expression.

17.   The memory medium of claim 1, wherein the program instructions are further executable to perform:

dismissing the tooltip based on one or more of:

third user input, indicating dismissal of the tooltip; and

5   lapse of a specified time period.

18.   A method for debugging a program, the method comprising:

displaying source code for the program in a first GUI element;

10   receiving first user input to the first GUI element indicating an expression in the source code;

displaying a value of the expression in a tooltip in response to said first user input;

receiving second user input to the tooltip modifying the displayed value, thereby specifying a new value for the expression; and

15   setting the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

19.   A system for debugging a program, the system comprising:

20   a processor; and

a memory coupled to the processor, wherein the memory medium comprises program instructions implementing a graphical user interface (GUI) for debugging the program, wherein the program instructions are executable by the processor to:

display source code for the program in a first GUI element of the GUI;

25   receive first user input to the first GUI element indicating an expression in the source code;

display a value of the expression in a tooltip in response to said first user input;

receive second user input to the tooltip modifying the displayed value, thereby specifying a new value for the expression; and

set the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

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20.   A system for debugging a program, the system comprising: ᴜ

means for displaying source code for the program in a first GUI element;

means for receiving first user input to the first GUI element indicating an

10   expression in the source code;

means for displaying a value of the expression in a tooltip in response to said first user input;

means for receiving second user input to the tooltip modifying the displayed value, thereby specifying a new value for the expression; and

15   means for setting the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

21.   A memory medium which stores program instructions implementing a

20   graphical user interface (GUI) for debugging a program, wherein, during execution of the program, the program instructions are executable by a processor to perform:

displaying source code for the program in a first GUI element;

receiving first user input to the first GUI element indicating an expression in the source code;

25   displaying the value of the expression in a window in response to said first user input, wherein the window is operable to display a value of the indicated expression, wherein the window does not include window title bars or menus;

receiving second user input to the window modifying the displayed value, thereby specifying a new value for the expression; and

setting the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

22.   The memory medium of claim 21, wherein the window is substantially just large enough to display the value of the indicated expression.

23.   The memory medium of claim 21, wherein the window is further operable to display the indicated expression, and wherein the program instructions are further executable to perform:

displaying the indicated expression with the value in the window, wherein the window does not include visible boundaries demarcating the displayed expression and value, wherein the window is substantially just large enough to display the indicated expression and the value of the indicated expression.